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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,736	03/10/2006	Colin Stuart Sills	142.025US01	3907
34206	7590	10/03/2007	EXAMINER	
FOGG & POWERS LLC 10 SOUTH FIFTH STREET SUITE 1000 MINNEAPOLIS, MN 55402			NOORI, MAX H	
			ART UNIT	PAPER NUMBER
			2855	
			NOTIFICATION DATE	DELIVERY MODE
			10/03/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@fogglaw.com

*

Office Action Summary	Application No.	Applicant(s)	
	10/541,736	SILLS ET AL.	
	Examiner	Art Unit	
	Max Noori	2855	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-29 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>7/7/05</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 10, 21, 25 and 29, rejected under 35 U.S.C. 102(b) as being anticipated by Jacobsen et al.

Regarding claims 1-4, 10, 21, 29, Jacobsen et al., discloses a field based movement sensing apparatus with features of the claimed invention including first and second members supported relative to each other by a support means, the first member comprising a magnetic field generator, and the second member for monitoring the magnetic field. The first and second members are deformable relative to each other varying the electromagnetic coupling so that, in response to a deformation, a signal is induced indicative of the position of the local deformation (see claims 1 and 8).

Regarding claim 25, the emitters (elements 104, 108) act as ridges.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen.

Regarding claim 28, Jacobsen does not show the use of index marking. It would have been obvious for a skilled artisan at the time of the invention to modify Jacobsen to provide for index marking on the outer face in order to organize the various area of the sensor. Because when all the elements of the apparatus claim is presented in a prior art placing of marking for more accurate positioning is well within the level of an ordinary artisan.

5. Claims 5-9, 11-18, 22-24, 26-27, is rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen in view of Silk et al.

Regarding claim 5, Jacobsen does not elaborate on the nature of the magnetic field or the sensor, the use of winding in such systems are however, notoriously known. Silk et al., for example, discloses a position sensor teaching the use of various winding (see, for example, claim 29). It would have been obvious for a skilled artisan at the time of the invention to modify Jacobsen to use winding in order to generate or sense magnetic field.

Regarding claims 6-7, the winding are arranged to vary periodically and are quarter of cycle out of phase (see paragraph 0051).

Regarding claim 8, Silk shows the use of resonant circuit (element 41).

Regarding claims 9, 11, Silk shows the formation of related loops (see, paragraph 0068).

Regarding claim 12, Silk shows the use of carbon ink (see, paragraph 0144).

Regarding claim 13, Silk shows a processor (see figure 3a).

Regarding claim 14, Silk teaches consideration of two frequencies (see paragraph 0007).

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Regarding claims 15-16, Silk teaches consideration of demodulating with phase detection (see paragraph 0059).

Regarding claims 17-18, Silk teaches the use of mixer (see paragraph 0059).

Regarding claims 22-24, 26-27, Silk teaches air gap, deformable material and substrate (see figure 2).

6. Claims 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobsen in view of Denne.

Regarding claims 19-20, Jacobsen does not recite a rectilinear measurement path, even though such path is generally a matter of a specific design expedient, it is well known in the art. For example, Denne is presented to show similar arrangement. Denne discloses a linear electromagnetic machine teaching the structure of flexible member with generation of magnetic field as claimed and suggesting various path (col. 3, line 21). Therefore, it would have been obvious for a skilled artisan at the time of the invention to modify Jacobsen to use any desirable measuring path. Because, not only such path is known but also it does not contribute or add to the structure of the apparatus claim 4.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Max H. Noori whose telephone number is (571) 272-2185. The examiner can normally be reached on Tuesday-Friday from 8:00 AM to 6:00 P.M.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2800. The fax phone

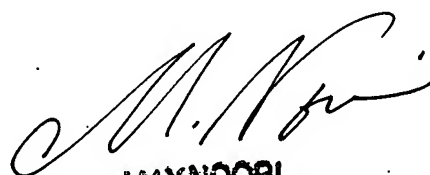
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number for the organization where this application or proceeding is assigned is 703-872-9306. The central fax number is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MHN

Thursday, September 20, 2007



MAX NOORI
PATENT EXAMINER